

REMARKS

Applicants elect for prosecution Group I, claims 1 and 3-23 drawn to the process for preparing the derivatives of formula (I) starting from 2-deoxy-D-galactose. This election is made with traverse.

Applicants disagree with the finding of non-unity, and thus request reconsideration and withdrawal of the election requirement.

The patent application in question is the US National Phase of an International Patent Application, which has been already examined by the PCT Authorized Officer who did not raise any objections to lack of unity of invention according to the PCT Rules.

In fact, when considering unity of invention of the present claims, the PCT Rules should be followed, and in particular PCT Rules 13.1 and 13.2, reciting that, when an application relates to a group of inventions, they must be so linked as to form a single general inventive concept, and among these inventions there must be a technical relationship involving one or more of the same or corresponding special technical features, i.e. of the features giving a contribution over the prior art.

According to the Examiner the foregoing requirement of unity of invention is not fulfilled, because the present claims 1-36 are directed to two inventions, i.e. two different processes. The processes are said to lack the same or corresponding special technical features because the *“technical feature linking Groups I-II is the synthesis of a 1-chloro-3,5-di-O-acyl-deoxy-L-ribofuranosidic derivative of formula (I). Nagaraja et al. (J. Heterocycle Chem. 1977, 34, 1581) teach the preparation of 1-chloro-3,5-di-O-acetyl-2-deoxy-D-ribofuranose according to a known procedure [...] Therefore, the technical feature linking the inventions of Groups I-II does not*

constitute a special technical feature as defined by PCT Rule 13.2 as it does not define a contribution over the prior art” (see Detailed Action, page 1, last two paragraphs).

Applicants, consider that the Examiner is in error for the following reasons.

The present claims 1 and 3-23 are directed to a process for the preparation of derivatives of formula (I) starting from 2-deoxy-D-galactose, including as the final steps the steps iv) and v) of acylation of compounds (V) to obtain compounds (VI) and of chlorination of (VI) with gaseous hydrochloric acid to obtain the products of formula (I).

The claims 2 and 24-36 are directed to a process for the preparation of the same derivatives of formula (I) starting from the compound (V), consisting of the same two steps of acylation and chlorination as set forth, to obtain the products of formula (I).

Therefore, there is a common inventive concept which unifies the two different processes claimed in the present application, that is the preparation of the products of formula (I) by chlorinating the acylated product of formula (VI), and this does, in fact, constitute a contribution over the prior art cited by the Examiner. The prior art just refers to the fact that the 1-chloro-3,5-di-O-acetyl-2-deoxy-D-ribofuranoside is prepared according to a known procedure.

The same can be said for the prior art cited during the PCT phase, Zhang et al. and Streitwieser et al. In particular, Streitwieser et al. does not refer at all to the chlorination of a previously acylated product, whereas Zhang et al. discloses a process for preparing 1-chloro-2-deoxy-3,5-di-O-p-toluoyl-L-pentofuranoside, wherein an acylation step followed by a chlorination step is disclosed, but the product coming from acylation is necessarily purified by chromatography

on a silica gel column before chlorination. Zhang et al. is silent about the possibility of obtaining the final product in high yields and with high purity without any purification before chlorination.

By contrast, the present process allows for the carrying out the chlorination after the acylation step, without any intermediate work-up, in particular without any chromatographic purification of the acylated product before subjecting it to the final chlorination (see Examples 4 and 5, pages 8-9 of the present application). In this connection, please note that the wording of both claims 1 and 2 in the present application excludes that the acylated product could be purified before being subjected to the subsequent chlorination, because it is clearly stated in step v) as well as in step v') that the chlorination is carried out on the acylated product coming from the preceding step and there is no intermediate purification step.

Moreover, the present chlorination step is carried out using the same solvent as in the preceding step and very high yields are obtained.

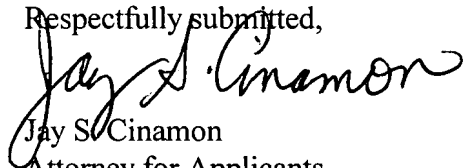
In view of the foregoing, the two steps of acylation and chlorination according to the present invention do constitute an inventive feature, common to the processes of claims 1 and 2, even if the process in claim 1 presents further advantages over the prior art (see present application, page 2, lines 2-6).

Withdrawal of the restriction requirement is solicited.

Applicants expressly reserve the right to file one or more divisional applications directed to the non-elected claims.

Please charge any fees which may be due to Deposit Account No. 01-0035.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jay S. Cinamon". The signature is fluid and cursive, with the first name "Jay" and last name "Cinamon" clearly distinguishable.

Jay S. Cinamon
Attorney for Applicants
Registration No. 24,156

ABELMAN, FRAYNE & SCHWAB
666 THIRD AVENUE, 10TH FLOOR
NEW YORK, NEW YORK 10017-5612
Tel.: (212) 949-9022
Fax: (212) 949-9190